Thomas E. Burley, GISP

Texas Water Science Center

U.S. Geological Survey

1505 Ferguson Lane, Austin, TX, 78754

teburley@usgs.gov

cell: (865) 567-3577

office: (512) 927-3511

Effective science professional offering technical and management experience with business-minded acumen. Articulate, results-focused leader with talent for identifying short term needs and long term opportunities, aptitude for research, and track record of exceeding position expectations.

Professional Certifications

- **Geographic Information Systems Professional (GISP)** – GIS Certification Institute (GISCI)
  Certification Number: 00062271

Teaching Experience

USGS Federal Geographic Data Committee (FGDC) Metadata Training Program – 2007 to present

- Coordinated and taught workshops in Asheville, NC; Knoxville, TN; Portland, OR; Washington D.C.; Austin, TX for 25+ students; multiple Univ. of TN guest lectures
- Experience conducting live web training seminars (webinars)

Professional Experience

Geographer at the United States Geological Survey (USGS), Austin, TX – May 2009 to present

- Manage multiple externally-funded physical science projects and deliver on-time and on-budget results
- Foster and maintain customer relationships; market capabilities for program development
- Author peer-reviewed publications for dissemination of research
- Develop complex semi-automated methods for large dataset integration, analysis, and data management
- Initiated process to improve science center project data review consistency
- Provided leadership to Texas Science Center District training committee as co-chair

Research Associate II at the Institute for a Secure and Sustainable Environment (ISSE)
University of Tennessee, Knoxville, TN – June 2004 to May 2009

- Managed multiple externally-funded projects; administered over $300K in funding
- Conducted physical/environmental science research using quantitative multivariate methods and geospatial analysis techniques; presented analytical results and findings in publications and maps
- Developed proposals and authored technical publications
- Hired and supervised graduate research assistants and project subcontractors
- Served as ISSE GIS Specialist: administered GIS applications on production servers for an enterprise GIS infrastructure including installing, upgrading, maintaining and performing troubleshooting
- Developed and implemented enterprise infrastructure migration plan for regional information system
- Interfaced with Federal, State, NGO, and private industry project partners to meet project objectives

Student Assistant at ESRI Student Assistantship Program, San Diego, CA – August 8-13, 2004

- ESRI International User Conference – among 60 students selected from 300 international applicants
- Assisted with overall behind-the-scenes logistics of 12,000+ attendee user conference
- Supervised technical training seminars; functioned as on-call assistance

Logistics Analyst Intern (Full-Time) at ALCOA Materials Management, Knoxville, TN – June 2003 to January 2004

- Managed/monitored all of ALCOA's outbound rail shipments across North America
- Coordinated with ALCOA 3rd party transportation services and all major Class I Railroad Customer Service Centers for real-time shipment management and prioritization
- Facilitated the reinstatement of a major rail service provider account customer service representative
- Assisted in implementing novel solutions for managing an ALCOA 3rd party transportation services firm
- Analyzed transportation data to identify opportunities for reducing rail transit times and improved reliability

Education

The University of Tennessee, Knoxville, TN
December 2004 (Cum Laude)

- Bachelor of Science (B.S.), Business Administration (Major: Supply Chain Management)
- Bachelor of Arts (B.A.), Geography

December 2008 (Summa Cum Laude)

- Master of Science (M.Sc.), Geography (Hydrology and Geographic Information Science Focus)

Key Strengths and Technical Capabilities

Project Management

Personnel Management

Adept at Learning New Technology

Technical Writing and Verbal Communications

Data Integration and Management

Proposal Development

Geospatial Metadata Standards (FGDC, ISO)

Quantitative Methods (Statistical/Multivariate)

Quality Assurance/Quality Control

Database concepts and design

Cartography

GPS Theory/Concepts

Familiar with Open-Source Software (GIS, non-GIS)

Familiar with OGC Standards and Specifications

ArcView 3.x, ArcGIS 9.x, ArcGIS 10.x

ArcGIS Server 9.x, ArcIMS 9.x, ArcSDE 9.x

ERDAS IMAGINE 9.x

Adobe Illustrator

R Statistical Environment

SPSS 15

Apache/Apache-Tomcat/IIS

Oracle 10g & 11g

Visual Studio .Net 2008

UNIX/Sun Solaris (bash shell)

SQL

Visual Basic/VBA/VBScript

Python (scripting and geo-processing)

Visual Basic.NET

Refereed Publications, Articles, and Technical Reports

- **Burley, T.E.**, Asquith, W.H., and Brooks, D.L., 2011, Spatially pooled depth-dependent reservoir storage, elevation, and water-quality data for selected reservoirs in Texas, January 1965–January 2010: U.S. Geological Survey Data Series 594, 13 p. Available at http://pubs.usgs.gov/ds/594/

- **Burley, T.E.**, 2010, Usage and administration manual for a geodatabase compendium of water-resources data–Rio Grande Basin from Rio Arriba-Sandoval County line, New Mexico, to Presidio, Texas, 1889–2009: U.S. Geological Survey Open-File Report 2010-1331, 62 p. Available at http://pubs.usgs.gov/of/2010/1331/

- **Burley, T.E.**, and Peine, J.D., 2010, The Future of Geospatial Data Management: A Natural Resource Perspective, GeoWorld, v.23, no. 7, p. 20-23. Available at http://www.geoplace.com

- **Burley, T.E.**, and Peine, J.D., 2009, NBII-SAIN Data Management Toolkit: U.S. Geological Survey Open-File Report 2009–1170, 96 p. Available at http://pubs.usgs.gov/of/2009/1170/

- Tran, L.T., and **Burley, T.E.**, 2009, An Analysis of Spatiotemporal Variations of Water Quality in the Little River and Harpeth River Watersheds and their Connection with Land-Cover Patterns, ISSE Working Paper 2009-01, 146 p. Available at http://isse.utk.edu/pdf/issepubs/2009_01_WaterQualityAnalysis.pdf

- **Burley, T.E.**, 2008, An Analysis of Spatiotemporal Variations of Water Quality in the Little River Watershed and Their Connection with Land-Cover Patterns, M.Sc. Thesis, University of Tennessee, 119 p. Available at http://etd.utk.edu/2008/December2008MastersTheses/BurleyThomasEdward.pdf

Professional Proceedings, Invited Workshops, and Presentations

- 2011. Invited to provide expert input at DataONE "Best Practices for Data Management" workshop. Santa Fe, NM. Best Practices and Tools available online at: https://www.dataone.org/

- 2010. **Burley, T.E.** Abstract. "Standardized Metadata: Preserving Today's Data Resources for Tomorrow". Proceedings of the 2010 Texas GIS Forum. Austin, TX.

- 2010. **Burley, T.E.** Abstract. "Design and Compilation of a Water Resources Geodatabase for the Rio Grande Basin – San Acacia, New Mexico to Fort Quitman, Texas". ESRI International User Conference. San Diego, CA.

- 2010. **Burley, T.E.** Abstract. "Design and Compilation of a Water Resources Geodatabase for the Rio Grande Basin – San Acacia, New Mexico to Fort Quitman, Texas". National Water Quality Monitoring Conference. Denver, Colorado.

- 2008. Peine, J.D., **T.E. Burley**, B.L. League, S.C. Hetrick. Abstract. "Data Management: A Critical Link Between Scientists and Managers". Society for Conservation Biology Conference. Chattanooga, TN.

- 2007. **Burley, T.E.** and J.D. Peine. Co-Chair of Moderated Session. "Collaborative Data Objectives for Resource Management and Science, Collection and Documentation Standardization, Archiving and Sharing." Southern Appalachian Man and the Biosphere Conference. Gatlinburg, TN.

- 2007. Peine, J.D, **T.E. Burley**, B.L. League, S.C. Hetrick. Poster. "NBII Support for the Appalachian Trail Mega-Transect Monitoring Initiative." Southern Appalachian Man and the Biosphere Conference. Gatlinburg, TN.

- 2007. Invited Panel Discussion Participant. "Portal Community Implementation and Examples." Organization of Fish and Wildlife Information Managers Conference. National Conservation Training Center, Harper's Ferry, WV.

- 2006. Peine, J.D. and **T.E. Burley**. Abstract. "Roan Mountain and Data Management: Facilitating Science through Data and Information Management." Southern Appalachian Man and the Biosphere Conference. Gatlinburg, TN.

- 2006. **Burley, T.E.** Abstract. "NBII-SAIN Roan Mountain Data Management Toolkit." East TN Geographic Information Council Conference. Knoxville, TN.

- 2005. Peine, J.D. and **T.E. Burley**. Abstract. "Information Management for the Roan Mountain Massif: Creating a Process for Adaptive Mgmt. and Science." Southern Appalachian Man and the Biosphere Conference. Cherokee, NC.

- 2005. Peine, J.D. and **T.E. Burley**. Abstract. "The Appalachian Trail Community and the NBII Portal: Progress and Lessons." Southern Appalachian Man and the Biosphere Conference. Cherokee, NC.

Honors and Awards
- 2010. Department of Interior (DOI) Special Thanks for Achievement (STAR) Award.
- 2007-2008; 2008-2009. UTK Dept. of Geography Outstanding Professional Achievement Award
- 2004. Delta Nu Alpha Cathy Davis "Motivation to Education" Scholarship
- 2004. David D. Dortch Scholarship in Logistics and Transportation
- 2002. Delta Nu Alpha International Transportation and Logistics Organization Academic Scholarship
- Golden Key National Honor Society
- National Society of Collegiate Scholars
- 2001-2002; 2004-2005.The National Dean's List
- 1999. Bridgestone/Firestone Academic Scholarship

Professional Training and Development
- 2011. Selected to attend USGS Leadership Intensive Workshop (16 hours)
- 2010. USGS Empowering Authors Technical Writing and Publications (24 hours)
- 2009. Introduction to Programming with Microsoft .NET (40 hours)
- 2008. Oracle Database 10g Administration Workshop I (40 hours)
- 2008. ArcGIS Server Enterprise Configuration and Tuning for Oracle (16 hours)
- 2007. Leica Geosystems Instructor-Led Training: Fundamentals of ERDAS IMAGINE I and II (40 hours)
- 2006. ESRI Instructor-Led Training: Advanced Analysis with ArcGIS (24 hours)
- 2006. ESRI Instructor-Led Training: Quality Assurance/Quality Control for GIS Data (16 hours)
- 2006. USGS-NBII FGDC Metadata "Train the Trainer" Workshop (24 hours)
- 2005. May - August, Toastmasters International – UT Chapter Club 7650
- 2005; 2006. USGS-NBII FGDC Metadata Training Workshop (12 hours)
- 2004 - 2006; 2010. ESRI User Conference – multiple training seminars